EcoRA Conference Call - January 20, 2000, 9 AM - 10:20 AM

Participants:

Nick Zilka, IDEQ
Steve Hughes, URS
Mary Jane Nearman, EPA
John Roland, Ecology
Julie Campbell, USFWS
Harry Ohlendorf, CH2M Hill
Brad Frasier, USFWS
Anne Dailey, EPA
Phil Cernera, CDA Tribe
Julie Campbell, USFWS
Tom Dahl, Dahl Assoc.
Dan Winstanley, CH2M Hill
Don Heinle, CH2M Hill
Frank Frutchey, CAC RI/FS Task Force
Jeff Fromm, IDEQ
George Brabb, CAC RI/FS Task Force
Merril Coomes, Coomes Assoc.
Joe Goulet, EPA
Dick Martindale, EPA

Paul Woods/NAWQA study in CDA basin -
- Paul provided a heads-up about a USGS-funded National Water-Quality Assessment Program (NAWQA) study in the CDA basin happening August-September 2000
- the study is a gradient (no impact -> substantial impact) synoptic study in the CDA basin using standard NAWQA sampling protocols
- this study is part of a 60 unit nationwide NAWQA network and resultant data will be part of a nationally comparable database
- biological/ecological aquatic sampling; data will be used to assess current conditions and may be used to assess remediation effectiveness
- study will include a wide range of sampling including habitat analyses, fish community/tissue, benthic macro-invertebrate, algae, bottom sediments and selected water quality sampling
- 18 stations in the basin - most are part of the current USGS network (includes stations on the NFCDA, SFCDA, main stem CDA, the mouths of main tributaries, St. Joe, CDA Lake)
- Paul will email a draft of the study plan to EPA and we will forward the plan to the EcoRA group and others

Discussion Re: Tech Memo - Draft Toxicity Reference Values for the CDA EcoRA:
- draft document provided to the EcoRA workgroup electronically on January 14th; hard copies were mailed to several individuals per their requests
- toxicity data are needed to determine whether concentrations of chemicals of potential ecological concern (COPECs) in environmental media present risks to receptors in the Coeur d'Alene Basin

- the draft memorandum documents toxicity reference values (TRVs) that are being considered for use in the CDA EcoRA
- TRVs for each representative receptor group are included in the draft document

- Several errors have been noted in the draft TRV Tech Memo and will be corrected in the final document.
    - Table 11: Zinc value under Quiring, et al., should be 280 and zinc sediment PRG should be 280 mg/kg dw
    - Units on the tables are mg/kg dw (or ppm)

- there was a question about TRVs for fish - planning to use the national criteria for aquatic organisms; TRV is the national criteria cumulative response function will be established, fish endpoints have been defined; Bull trout may not be fully protected by the cadmium chronic criteria (reflected in a foot note in Table 10)

Clarifications on the organization of the TRV memo in general using an example:
- Table 1 - draft plant NOEC concentrations
- Table 2 - draft plant LOEC concentrations
- Figure 1 presents cumulative distribution curves for arsenic in plants using the data presented in Tables 1 and 2
- other tables present the available toxicity data for other receptors; other figures then present the cumulative distribution curves for COPECs and receptors

- data from the basin that do not lend themselves to tabulation such as the biological tissue and sediment ingestion values will be included elsewhere and will be modeled for different exposure scenarios
- Dan Audet, USFWS, worked with URS/CH folks last week to figure out the best way to incorporate the sediment ingestion values; will use the raw data and include them as distribution curves for exposure scenarios
- for example, may have a curve for mallards (and other species) for exposure at a given Lateral lake using specific contamination concentrations collected at various sites in the basin; sediment ingestion rates vary among organisms and concentrations vary among locations in the basin and this is a mechanism to take into account this variation
- blood, kidney, and liver lead data may not lend themselves to this sort of analysis but they will be used in the analysis to indicate exposure and if associated with a biological effect (e.g. lethality) which the modeling takes into account; exposure and effects calculations will include this data

- Frank Frutchey wondered why data from CDA slickens was not included since this may vary from climate in CDA, pH (most of CDA peat-muck soils are high pH), and water level is high

- after some discussion it was concluded that data from CDA slickens was not included because nobody was aware of available data or a report concerning this – if anybody is aware of such data please let Anne Dailey know ASAP!
- a question was also raised regarding whether the species included as TRVs are going to provide accurate results since many of the test species are genetically altered and not native to Coeur d'Alene and are also fairly sensitive (e.g., lettuce, tomatoes)
- most data available for inclusion as TRVs come from laboratory studies where certain variables (e.g. temperature) are controlled and thereby removed as factor
- the sensitive test species will provide a conservative assessment of risk but this will be noted as one of many uncertainties that exist in the ecological risk assessment
- it was suggested that we might do some testing in CDA which would address the variability of existing CDA -> does EPA have the ability to go out now and do site-specific data collection to address this potential data gap?
- One outcome of the EcoRA will be identification of data gaps which will be evaluated and prioritized; given the amount of data already available and the desire to move expeditiously with the RI/FS, the decision was made to utilize existing data to the extent possible but with the recognition that data gaps may be identified.
- the schedule for the project we does not allow for to conduct additional studies in time for inclusion in the EcoRA and RI/FS.
- many studies, however, have been conducted in the basin on raptors, rodents, waterfowls, etc. that are included in the data set for the EcoRA; the EcoRA will be using all available, relevant site-specific data
- it was recommended that an increased focus and weight be placed on grasses and other species that are likely to exist in the basin as opposed to very sensitive cultivated species (e.g., tomatoes, broccoli, etc.).
- The EcoRA will use a weight of evidence approach to assess impacts of mining contamination

- A question was raised concerning whether the data from the EcoRA is going to have enough certainty to base a risk management decision? Will the data be able to support decision-making?
- There is no clear formula for uncertainty as there is in human health risk assessments; no clear guidance for applying uncertainty factors to the EcoRA values other than identifying the uncertainty and addressing it where possible. The uncertainty will be addressed identified and qualitatively in the EcoRA report "Uncertainty Analysis" section.
- comment was raised that many of the values used in ecological risk assessments are based up cultivated species, laboratory species, etc. rather than native species and this will need to be addressed in the uncertainty discussion of the EcoRA report - it will be.

Schedule:
- EcoRA draft report may be delayed somewhat to include additional data in the database being used for the risk calculations - more on this soon!
- EcoRA workshop for CAC RI/FS Task Force and WA CAC on Wed. 2/9/2000 in CDA, tentatively scheduled for 5 pm - 8 pm. Details forthcoming about this.
- Separate workshops for the CAC groups and EcoRA workgroup will be held during the review period for the EcoRA report.

Other Issues
The data CD-Rom will be distributed in several weeks pending contract approval to duplicate the CD-Roms. The data reports are already present in the information repositories in the CDA Basin.

Next EcoRA call:

- Next EcoRA call will be on February 3, 2000 at 9 AM PST (call in number is 202-260-1015; access code: 8263#)
- subjects of discussion will be CSM 5 development and the EcoRA draft document outline